

We claim:

1. A screenplate having very fine slots of selected width for screening devices comprising a plurality of elongate strips having side edges, a plurality of elongate spacers having a thickness approximately equal to the width of slots in the 5 screenplate, the spacers having a width approximately equal to the width of strips and a length less than four times the width of spacers, and the spacers being separated from each other at intervals approximately two to twenty times the length of spacer, and the intercontacting surfaces of the strips and spacers being metallurgically bonded.

10 2. A screen plate as defined in claim 1 in which a side edge of the strips is bevelled.

3. A screenplate having very fine slots of select width for screening devices comprising a plurality of elongate strips having side edges, a plurality of elongate spacers having a thickness approximately equal to the width of slots in the 15 screenplate, the spacers having a plurality of open areas defined by sidepieces joined by cross bars, the strips and spacers arranged alternately in a stack with the strips aligned centrally of the spacers so that a portion of the open areas of the spacers extends beyond the side edges of the strips, the intercontacting surfaces of the strips and spacers being metallurgically bonded, and the sidepieces being 20 trimmed away at the side edges of the strips.

4. A method of constructing a screenplate for screening devices utilizing a plurality of strips having generally parallel side edges and a plurality of preformed spacers having a thickness approximately equal to the width of slots, the spacers being elongate with open areas through the surface and with the open 25 areas wider than the strips, comprising the steps of:

- a. assembling an alternating stack of strips and spacers,
- b. aligning the strips and spacers with the strips positioned relative to the spacers with each open area of the spacers extending past each side edge of

the strips,

c. metallurgically bonding the strips and spacers at their intercontacting surfaces, and

d. trimming away the portion of spacers extending past the side edges 5 of the strips.

5. A method of constructing a screenplate for pulp and papermaking screening devices utilizing a plurality of strips having generally parallel side edges and a plurality of spacers having a width greater than that of the strips, the spacers 10 being elongate with open areas through the surface and with the open areas wider than the strips, comprising the steps of:

a. assembling an alternating stack of strips and spacers,

b. aligning the strips and spacers with the strips positioned centrally of the spacers with each open area of the spacers extending past each side edge of 15 the strips,

c. metallurgically bonding the strips and spacers at their intercontacting surfaces, and

d. trimming away the portion of spacers extending past the side edges of the strips.

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6. A screen cylinder having a side wall screenplate with slots parallel to the cylinder axis comprising a plurality of elongate strips having side edges, a plurality of elongate spacers having a thickness approximately equal to the width of slots in the screenplate, the spacers having a width approximately equal to the width 25 of strips and a length less than four times the width of spacers, and the spacers being separated from each other at intervals approximately two to ten times the length of spacer, and the intercontacting surfaces of the strips and spacers being metallurgically bonded.

7. A screen cylinder as defined in claim 6 further having profile bars 30 forming part of the cylinder side wall.

8. A screen cylinder as defined in claim 7 in which the cylinder side wall comprises sections of between two to twenty slots in width, and further wherein the sections are separated by profile bars.

9. A screen plate for pulp and papermaking comprising a plurality of 5 strips separated by spacers to define slots of uniform width between the strips, the spacers having uniform length, the slots having uniform length, and the ratio of slot length to spacer length being in a range of 2 - 10 : 1.

10. A screen plate for pulp and papermaking comprising a plurality of strips separated by spacers to define slots of uniform width and length between the 10 strips, the slots having a width of 0.005" or less and a length of 3" or less, and the slots forming at least 15% of the open area of the screen plate.

11. A screenplate having very fine slots of selected width for screening devices comprising a plurality of elongate strips having side edges, a plurality of elongate spacers having a thickness approximately equal to the width of 15 slots in the screenplate, the spacers having a width approximately equal to the width of strips and a length less than four times the width of spacers, and the spacers being separated from each other at intervals approximately two to ten times the length of spacer, and the intercontacting surfaces of the strips and spacers being metallurgically bonded.